

July 26, 2017



U.S. Department  
of Transportation

East Building, PHH-30  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 20433

**EXPIRATION DATE: 2019-06-30**

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Brammo, Inc.  
Talent, OR
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation of prototype and low production batteries that exceed 35 kg aboard cargo-only aircraft. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
  - c. No party status will be granted to this special permit.
  - d. This special permit serves as an approval under Special Provisions A88 and A99 of the ICAO TI and as a "Competent Authority Approval" as defined under 49 CFR § 107.1.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 172.101 Column (9B) in that the batteries may not exceed 35 kg and 173.185(a) in that the batteries may not be of a type proven to have met the requirements of the UN Manual of Tests and Criteria.

Tracking Number: 2017037226

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5. BASIS: This special permit is based on the application of Brammo, Inc. dated March 10, 2017 submitted in accordance with § 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium ion batteries	9	UN3480	N/A

7. SAFETY CONTROL MEASURES:

a. Safety Controls:

(1) Each cell must not exceed a rated capacity of 48 Ah.

(2) Cell module assemblies (CMAs) must be comprised of not more than 40 cells and must have a Watt-hour rating not exceeding 5,800 Wh.

(3) Assemblies of CMAs must be configured in 2P, 3P, 4P, 5P, or 7P and must have a Watt-hour rating not exceeding 42,000 Wh.

(4) CMAs and assemblies of CMAs must be shipped at a state of charge not more than 30 percent during transport.

(5) CMAs and assemblies of CMAs must be protected against external short circuiting.

(6) CMAs and assemblies of CMAs must be equipped with an effective means of preventing dangerous reverse current flow when connected in parallel.

b. Testing:

(1) All cells must be of a type proven to meet the requirements of the UN Manual of Tests and Criteria, Fifth Revised Edition.

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(2) Each specific type of CMA or assembly of CMAs must be subjected to a short circuit test (connecting a conductor across the positive and negative terminals and maintaining this short circuit for at least 1 hour), which may be conducted at a temperature range between room temperature (approximately 23°C) and 55°C.

(3) Each type of CMA and assembly of CMAs is considered safe to transport under the terms of this approval if the type shows no disassembly or fire after completion of these tests. A type of CMA or assembly of CMAs type that has not passed these tests is not authorized to be offered for or transported under the terms of this Special Permit.

(4) CMAs or assemblies of CMAs need not be of a type proven to meet the requirements of the UN Manual of Tests and Criteria, Fifth Revised Edition other than the test required in 7.b.(2).

c. Packaging: Authorized batteries must be prepared for transportation as follows:

(1) CMAs -

(i) Inner packaging - CMAs must be individually packed in an inner packaging that is non-metallic and surrounded by cushioning material that is non-combustible and non-conductive.

(ii) Outer packaging - The inner packages must be packed inside a type of outer packaging specified in § 173.185(e)(2) meeting the Packing Group I performance criteria in accordance with § 173.185(e).

(iii) Each CMA must not exceed 70 kg net weight.

(2) Assemblies of CMAs -

(i) Assemblies of CMAs with a mass of 12 kg or greater must have a strong, impact-resistant outer casing.

(ii) Such assemblies of CMAS may be packed in strong outer packagings or protective enclosures.

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(iii) Each assembly of CMAs must not exceed 750 kg net weight.

d. Marking Requirements: Each package, and overpack if used, prepared under the terms of this Special Permit must be plainly marked and displayed on a background of contrasting color with "DOT-SP 20433".

8. SPECIAL PROVISIONS:

a. A current copy of this special permit must be maintained and made available for examination at each location where materials are packaged and offered for transportation under its authority.

b. A current copy of this special permit must accompany any shipment made under the terms of this special permit.

c. Any person who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit.

d. This special permit in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of countries of origin, transit and destination.

e. The special permit holder must maintain the following record and upon request make this record available to a DOT representative or an enforcement official. The record must contain a listing and number of shipments made to include:

(1) Dates of shipment; and

(2) Description of each type of shipment.

9. MODES OF TRANSPORTATION AUTHORIZED: Cargo-only aircraft.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.

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11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)– "The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

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12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for William Schoonover  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm). Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Steve H/Andrew Eckenrode